

LDQPC QUASI-PULSED LASER DIODE DRIVER



The LDQPC quasi-pulsed laser diode drivers are specifically designed for low cost high volume applications. These DC input modules are available with average output power to 100 watts and current output to 200 amps. With a rise/fall time of <math><10\mu\text{s}</math>, they are ideally suited for compact short pulse laser applications. All configurations require 15 volts DC and feature a simple analog interface. Output current and voltage can be specified to meet your requirements.

Built around the same topology that has made Lumina Power laser diode drivers the standard of the industry, these board level products offer the reliability and diode protection of the LDQPC series in a compact easy to integrate package.



FEATURES

- 100 Watts Average Power
- 10 μs . Rise/Fall Time
- 200 Amps Peak Output
- RoHS Compliant
- Analog Interface

APPLICATIONS

- Medical Laser Systems
- Mobile Lasers
- Pulsed R&D Applications

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Specifications

INPUT

Input Voltage: +15VDC

OUTPUT

Output Power: 100 watts average
 I_{pulse}max: 200A peak
 I_{avg}max: 80A
 V_{compliance}max: Configurable up to 6V

INTERFACE

Interface Connector: 15 Pin "D" Sub Female
 Pulse Enable: +5V TTL to +15V CMOS
 Current Program: 0-10V for 0-I_{out}max
 Current Monitor: 0-10V for 0-I_{out}max
 Voltage Monitor: 0-10V for 0-V_{out}max

PERFORMANCE

Pulse Width Range: 20usec to 2msec
 Max Rep Rate: 10kHz
 Rise/Fall Time: 10uSec
 Current Regulation: 1.0% of max. output current
 Current Ripple: <0.5% of max. output current
 Current Overshoot: <5% of max. output current
 Power Limit: Limited to maximum average power with power fold-back circuit

ENVIRONMENT

Operating Temp: 0 to 40°C
 Storage: -20 to 85°C
 Humidity: to 90% non-condensing
 Cooling: Forced air

MECHANICAL

Dimensions: See Drawing

Part Number Description: LDQCW-XX-YY-ZZ
 XX= Current, YY = Compliance Voltage, ZZ=maximum pulse width

Example: LDQCW-100-6-100us. This configuration is a 100amp peak, 6 Volts compliance and the maximum pulse width will be 100us.

Note: Special input and output voltage configurations are available. Please contact Lumina Customer Service or your local representative for more information.

